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ABSTRACT

The members of this task force adopted a broad approach to readiness so that issues relating to at-risk children and youth between the preschool years and graduation might be addressed. Two papers are presented: (1) "Readiness for the New Educational Standards" (Jean G. McDonald); and (2) "State Policy for At-Risk Children: Preschool to High School" (Allan Odden). Additional information is given on the charges to the task force, hearings and presenters, highlights of state policies, and additional resources. (JD)

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TASK FORCE ON **READINESS**

Supporting Works

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Time For Results

THE GOVERNORS' 1991 REPORT ON EDUCATION

TIME FOR RESULTS: The Governors' 1991 Report on Education

Supporting Works

Task Force on Readiness

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August 1986.

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TABLE OF CONTENTS

Acknowledgements i

PART ONE: The Task Force

1. Charge to the Task Force 3

2. Task Force Activities: Hearings and Presenters 5

PART TWO: Papers

1. Readiness for the New Educational Standards
Jean G. McDonald 11

2. State Policy for At-Risk Children: Preschool to High School
Allan Odden 47

PART THREE: Additional Resources

1. Highlights of State Policies 69

2. Additional Sources 71

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The National Governors' Association Center for Policy Research and Analysis coordinated the year-long project. Professional staff and consultants include Joe Nathan, Joan L. Wills, Evelyn Ganzglass, Carol Eliason, Rae Young Bond, Linda Myers Dove, Jean McDonald, and Cindy K. Currence. Editorial support was provided by Mark Miller, Karen Eldridge, Diane Greene, and Alan Janesch. Expert secretarial assistance was provided by Beverly Bowers, Linda Burnette, Luisa Farrell, Francine Matthews, and Deborah Woods.

The Task Force on Readiness of the National Governors' Association received the willing cooperation and support of the distinguished panelists listed in this document. Dr. Charles Haughey, Jim Bencivenga, John Ralph, and Randy Demaline of the Office of Educational Research and Improvement of the U.S. Department of Education have given invaluable assistance throughout the work of the task force. Funding from the Lyndhurst Foundation and the Carnegie Corporation of New York made this work possible.

Charge to the Task Force on Readiness

The members of this task force adopted a broad approach to readiness so that issues relating to at-risk children and youth between the preschool years and graduation might be addressed. For many students, increased educational standards and requirements present new challenges for them to meet.

For children who enter school with skills far less developed than their peers, such new standards may present barriers rather than opportunities. Therefore, the directives for this task force were to identify problems facing these children and youth, to study recommended solutions to these problems, and finally, to suggest strategies and alternatives for states to consider in making policies to help their at-risk children and youth succeed in meeting the new educational standards.

The Task Force on Readiness was asked to gather research, review literature, and collect testimony to address the following questions:

A. What statewide standards have been established for day care and early childhood education programs which receive state funding?

B. What content or curriculum standards for early childhood education programs have been or should be mandated by a state?

C. What qualifications and/or certification have been required of those who work in state-supported early childhood education programs?

D. What other standards should perspective early childhood staff members have to meet?

E. What standards have been established for staff continuing education and facilities for early childhood programs?

F. How have states helped families select from among day care and early childhood programs?

G. What forms of parental involvement/education have states encouraged or mandated as part of early childhood education programs?

H. What form of continuing review, licensure, or accreditation should states establish or require for programs receiving their support?

I. Are there different licensing standards between day care and early childhood education programs? Do the licensing standards affect program quality?

J. What has been the cost/benefit ratio of early childhood screening programs?

K. What are the costs/benefits of establishing programs for preschool children of different ages?

L. What programs work for students who are at risk of failure in school? Which compensatory and remedial programs are effective?

M. What strategies may schools take to lower the dropout rate and keep at-risk students in school through high school graduation?

The task force was charged with answering the following policy-related questions:

A. If states choose to invest in early childhood education programs, what priorities should be established?

B. How can states encourage development of programs that include the best features of early childhood education and day care programs?

C. What is the state's role in maintaining standards for early childhood programs? Should certain standards be set locally, while others are established by professionals and still others by the state?

D. What can states do to work with corporations to encourage their support of high quality early childhood development programs?

E. Should states provide choices in geographical areas to permit families a selection among various programs that recognize the maturation needs of the child?

F. How can states best respond to those who need both supervision, i.e. day care, and education for their preschool age children?

G. What changes in school, curricula, instructional approaches, or practices should be included in state policies to help at-risk students meet the new standards?

H. If states choose to invest in extra assistance through remedial or compensatory programs, what priorities should be established?

I. How can state policies encourage parents/relatives and community groups to help their children meet the new standards?

Task Force Activities: Hearings and Presenters

The Task Force on Readiness held three hearings and heard testimony from twenty-seven teachers, administrators, researchers, and experts regarding problems of educationally disadvantaged children and solutions to these problems. At the first hearing in Columbia, South Carolina, witnesses described the importance of early childhood programs. Components of high quality early childhood development programs and the long-term cost effectiveness of these programs were discussed. The participants visited a compensatory education program at Bradley elementary school and the half-day four-year-old program at Sarah Nancy elementary school in Columbia.

Columbia, South Carolina, November 27, 1985

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Washington, D.C.

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Program Director, Early Childhood Development
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Pittsburgh, Pa.

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David P. Weikart
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High/Scope Educational Research Foundation
Ypsilanti, Mich.

Charlie G. Williams
State Superintendent
South Carolina Department of Education

The second hearing was held in San Francisco. The scope of the dropout problem and solutions and programs in dropout prevention were discussed by participants.

San Francisco, California, December 6, 1985

Martha Darling
Director
Washington Business Roundtable

Bill Honig
State Superintendent
California State Department of Education

Michael Kirst
Director, Institute for Research on Educational Finance and Governance
Stanford University

Lorraine McDonnell
Education Policy Advisor
Rand Corporation

Kent McGuire
Education Commission of the States
Denver, Colo.

Richard "Pete" Mesa
Superintendent of Schools
Milpitas, Calif.

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Superintendent of Schools
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Professor
University of California, Berkeley

The importance of parental involvement in the education of their children was the theme of the final hearing in Pittsburgh, Pennsylvania, March 31. Ways of involving parents and models of parental involvement were described by several of the witnesses. Participants had the opportunity to observe parental participation on a first-hand basis at the Hilltop day care center.

Pittsburgh, Pennsylvania, March 31, 1986

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PART TWO: Papers

READINESS FOR THE NEW EDUCATIONAL STANDARDS

Jean G. McDonald
Consultant
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In the early 1980s Raymond Reisler, writing "An Education Agenda for the Eighties," listed reasons for America's disillusionment with the public education system. The public believed schools had been unable to teach students minimal proficiency in basic skills, had failed to provide students adequate academic preparation for postsecondary work, had not accomplished the training of a workforce equipped for a "complex and changing job market," and had not been held accountable for their failures. This crisis in public confidence regarding the nation's schools was intensified by the 1983 release of the National Commission on Excellence in Education's report A Nation at Risk. The report confirmed the worst fears of the country: the quality of the nation's education was in a serious state of decline.

The states' response to public distress about American schooling began several years prior to publication of "A Nation at Risk," although reform efforts were publicized and spurred on in the post-report era. For example, as early as 1972, Oregon became the first state to require proficiency testing (Miller, p. 59). Florida was the first state to require minimum competency testing for high school graduation. By 1977, thirty states mandated some form of achievement testing to determine what students were learning in the public schools and, in some cases, required passing scores for grade promotion or high school graduation (Miller, pp. 63-72). At this time, thirty-three states have competency testing programs in place (Education Commission of the States).

Other state measures to encourage higher quality public education resulted in strengthened high school graduation requirements. Thirty-five states had increased graduation requirements by 1984 (Navarro, p. 16). High school graduates were required to take more credits, particular patterns of courses, and specific courses for a more rigorous academic program. By 1984, five states required the commission's recommended four years of English, three years each of math, science, and social studies, and one-half year of computer science (Knapp, p. 5).

The direction and intent of these important state initiatives have been universally applauded. However, in the wake of the reforms, governors have begun to express concern for students who might be swept aside in the fervor to upgrade standards. Governors are asking if students who struggled to keep up with school work before tougher standards were enacted can meet the new requirements. Policymakers wonder if students for whom family, life circumstances, poverty, physical or emotional handicaps, and other negative conditions make learning a very difficult and unpleasant enterprise will be

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This paper reviews literature and research on promoting readiness for educationally at-risk children from early childhood through high school graduation. In addition, presentations from the panelists are synthesized and models of state activities and programs are discussed. The author is grateful to Randy Demaline, and John Ralph of the Office of Educational Research Improvement of the U.S. Department of Education. Numerous state officials cooperated to describe programs of interest in their state. The author takes sole responsibility for the contents.

pushed out of school by the new standards. As a result, a major issue has emerged: How can states, beginning in the preschool years, best prepare educationally disadvantaged students for school and continue to help them meet standards throughout their school years? This "flip side" of reform is a critical issue and, given the changing demographic composition of our school-age population, ultimately, may be as important for our country's future as increasing standards.

To be serious about preparing disadvantaged students for the new standards is a daring enterprise, for it requires posing difficult questions. And while the questions are crucial, the answers are elusive. Should states be involved in early childhood education programs for at-risk children, and how effective are these interventions in preparing infants, toddlers, and preschoolers for future academic achievement? Will preschool, all-day, and mandatory kindergarten programs push youngsters before they are developmentally ready for academic work and how can excellent programs avoid that dilemma? Can compensatory education techniques, effective school programs, dropout prevention programs, and other models effectively help at-risk kids meet new educational standards K-12? Are the reforms being undercut by serious problems facing today's students, e.g., minority teen unemployment, teen pregnancies, and child poverty? These and other difficult questions will be examined throughout this document.

AT-RISK CHILDREN: WHO ARE THEY?

Educationally disadvantaged children represent an increasing proportion of our youth -- about one-third of America's school-age population in 1982 (Levin, p.8). Children with physical and emotional handicaps and children from low-income backgrounds, immigrant and non-English-speaking families, single-parent households, and homes where parents have low educational attainment are more likely to be at-risk educationally, lacking basic educational skills. In a statistical analysis correlating aspects of disadvantage with achievement, poverty status was the most significant factor affecting academic achievement (Sherman, p. 14). Handicapped status and a non-English-speaking background also were found to lower achievement scores.

Child poverty is increasing in America. Between 1970 and 1983, the proportion of children living in poverty-level families rose from 14.9 percent to 22.2 percent (14 million) (The National Council of Human Service Administrators, p. 5). Poverty rates are highest for the youngest children, as one of four children under age six lives in poverty. Poverty is more prevalent among minority children; 46 percent of black children and 38 percent of Hispanic children are from poverty-level families (Koshel, "State Investments," p. 2). However, 63 percent of poor children are white, and the proportion of white children in poverty has been increasing at a more rapid rate than for minority children. Single-parent families in which the mother heads the household suffer high rates of poverty (56 percent), reflecting the lower earning capacity of American females. Parental educational achievement affects the poverty status of children; three of five youngsters from homes in which parents have an eighth grade education or less live in poverty (Peterson, pp. 4-5). While poor children are found in urban and rural areas, central cities and suburbs, 37 percent live in high poverty areas.

Several characteristics associated with poverty heighten the challenge of providing effective educational programs for at-risk children. For example, more than 60 percent of children from low-income families are dispersed throughout the nation's schools, making it difficult to target educational aid to the poor (Peterson, p. 6). Poor children frequently change residence (one in three move yearly), making continuity of programming difficult.

While poverty is on the increase, federal programs targeted for educationally disadvantaged children are suffering cutbacks. In the southern states, an estimated one-half of eligible elementary children and 10 percent of eligible high school students were being served by the federal government's compensatory education program (Title 1, now Chapter 1) in 1982 (Southern Governors' Association, p. 2). Head Start programs that have served low-income preschoolers since 1965 now serve only 400,000 children of 3 million eligible (Hodgkinson, p. 9). The reader should be aware of the difficulty of making precise estimates of the number of students covered by Title 1, due to the variation in programs and reporting mechanisms.

Twelve million children living in single-parent families face special problems that may place them at risk educationally (Roddy, p. 1). In particular, there is a greater likelihood of poverty among one-parent families. The average income of a female-headed household of three is $7,035. Relocation of elementary youngsters is twice as likely in single-parent families as it is in two-parent households (three times for secondary). Children from single-parent families are more likely to exhibit behavioral problems that may place them at-risk in school: absenteeism and tardiness, less efficient study habits, and disruptive classroom behavior (Roddy). One result is a higher dropout rate for youth from such families.

Another factor contributing to educational disadvantage is lack of an English-speaking home environment. In recent years, the United States has experienced the highest influx of immigrants since the 1920s. The immigrants (both legal and illegal) are predominantly non-English speaking, poorly educated, and from Southeast Asia or Latin America (McNett). Professor Henry Levin of Stanford cites 1980 Census figures showing 17 percent of five- to seventeen-year-olds are from non-English-speaking families. Levin contends that "students characterized by having parents with little education, low income, and a language other than English in the home" have multiple disadvantages. And the make-up of current immigration -- both legal and illegal -- will tend to reinforce this pattern" (Levin, p. 7).

Minority status often accompanies other characteristics of educational disadvantagement, and the proportion of minority school-age children is on the rise. Minority birthrate increases are due to higher fertility rates and youthfulness of minority groups. Harold Hodgkinson, in "All One System," predicts "minority majorities" may prevail in ten states during the next decade. Twenty-three of twenty-five of the nation's largest central city school districts already contain predominantly minority school-age population (McNett, p. 7).

The number of preschool youngsters is increasing at the fastest rate in more than a decade (9 percent between 1980 and 1984 - "School-Age Population,

p. 4). A majority of mothers of preschool children (52 percent) worked as of 1984, creating a crisis in the demand for day care and preschools. Private and public school preschool enrollments amounted to 4.3 million in 1970, 5.2 million in 1980, and are projected to reach 6.9 million by 1990 (National Center for Education Statistics, p. 22). Preschool programs have become increasingly popular for middle and upper-middle income families; 53 percent of three- and four-year-old children from these families attended preschool in 1982. However, only 29 percent of children from low-income families are enrolled in preschool, raising the fear that a two-tiered level of early childhood education is developing (Education Commission of the States). Fewer than 20 percent of low-income children participate in Head Start programs.

Trends of increasing childhood poverty, single-parent households, high percentages of children from non-English speaking families, federal budget cuts in programs to aid the poor, rising proportions of minority youth, an increase in the number of preschool children (a majority of whose mothers work), and related trends such as high rates of teen pregnancies and high youth unemployment, especially for minorities, all have critical implications for education and for society. Educational reform programs cannot ignore these trends. Henry Levin cites the dangers of a large disadvantaged school population: reduced economic competitiveness as the quality of the nation's labor force deteriorates; higher proportions of welfare and crime-related incidences; and, lastly, a dual society with a large and poorly educated underclass. What are ways states can act to offset these negative outcomes while striving to achieve high educational standards?

EARLY CHILDHOOD EDUCATION ISSUES

The rather gloomy outlook described above has not weakened the Governors' resolve to respond to these vital issues. Instead, a sense of optimism pervades those concerned with the question of readiness, in part encouraged by new research findings on the benefits of early childhood education. Gov. Michael Castle of Delaware, chairman of the National Governors' Association Committee on Human Resources, is an advocate of programs targeted to "the first sixty months." He argues that problems "of school failure, delinquency, unemployment, and premature parenting" can best be prevented by investing in early childhood programs. In an address to a 1986 conference on early childhood, Kentucky Gov. Martha Layne Collins stressed "it is easier to build than to repair" and it is "easier to build successful children than to repair unsuccessful adults." Working with children in the formative years may be the best way to break the costly cycle of poverty, undereducation, and poor health. For example, money spent on prenatal care may reduce tomorrow's health care, according to Gov. Collins.

The Perry Preschool Study

The highly publicized research influencing Governors and policymakers nationwide describes the effects of early childhood intervention from the Perry Preschool Project in Ypsilanti, Michigan. In a number of publications and in testimony at the first Readiness Task Force hearing, Lawrence Schweinhart and David P. Weikart discussed results of longitudinal studies of quality preschool programs, such as Perry Preschool (Schweinhart and Weikart

1985). In a twenty-two year study of 123 at-risk children who attended the preschool, the researchers discovered several profound findings: more of the preschool attendees graduated from high school than did a control, nonpreschool-attending group (67 percent to 49 percent); a higher proportion went to college (38 percent to 21 percent); fewer were assigned to special education classes (37 percent to 50 percent); and fewer were arrested as young adults (31 percent to 51 percent). Preschool attendance also was related to fewer teen pregnancies, greater likelihood of employment, and lower welfare recipient rates. Calculating a cost of $9,289 for a two-year quality preschool program the researchers projected a net benefit of $23,769. The benefit/cost ratio of the two year program is estimated at 3.56 and, one year, at 7.01. The Perry Preschool program was a five-morning-a-week, seven-and-a-half-month preschool with a teacher/child ratio of one to five and weekly home visits of one and a half hours (Schweinhart et al. 1985).

Other preschool program effects were examined over time by Lawrence Schweinhart and colleagues such as the Rome, Georgia, Head Start program, the Harlem project, New York prekindergarten, Mother/Child Home program, and Early Training Program. Where possible, comparisons were made with a control group on special education placement, grade retention, and dropout rates. In all cases, the preschool students compared favorably on these measures with a control group, although the results were not always statistically significant. The researchers stress that all of the programs analyzed were quality programs and, while costly, would result in ultimate savings to the taxpayer by reduced special education classes, grade retention, and fewer dropouts. Another longitudinal study that followed fifty-four students from preschool through high school found a highly academic, teacher-controlled preschool program could have deleterious effects. Youngsters who attended the highly structured program were twice as likely to be drug abusers and five times as likely to be involved in property destruction and other acts of violence as a control group (Bridgman 1986). These results reinforce the importance of quality, child-oriented programming in early childhood education.

Encouraging Parent and Infant Education

State efforts to help at-risk children prepare for schooling can begin with prenatal programs helping new parents develop parenting skills. Missouri has a new program targeted to parents of children from birth to age three, New Parents as Teachers (NPAT). Under the program, initiated in 1981 with pilot programs in four local school districts, the Department of Elementary and Secondary Education, assisted by the Danforth Foundation, assists parents from the third trimester of pregnancy through the child's third year. Each project hires two full-time, trained parent educators who make monthly home visits and hold group meetings with parents. The child's development is monitored as well. An initial evaluation of the pilot programs found them beneficial to children and parents alike. NPAT children displayed advances in intellectual and language development and positive social development. NPAT parents were better informed about child development than were the control group parents, viewed the local school district more positively, and expressed strong feelings of satisfaction with the NPAT program. In addition, "traditional measures of 'risk' (parents' age and education, income, single-parent families, number of younger siblings, and the amount of alternate care

received) bore little or no relationship to measures of intelligence, achievement, and language development. NPAT parents and children performed well, regardless of socioeconomic disadvantages and other traditional risk factors" (Missouri Department of Elementary and Secondary Education 1985).

Minnesota has provided an Early Childhood Family Education program since 1974. Originally offered through six pilot sites, the program has been expanded to school districts offering a Community Family Education program. Families of children, birth to kindergarten, are served through discussion groups, workshops, home visits, screening of child health and development problems, special family events, and parent/child interaction. The program is considered cost-effective through lowered remediation costs in the school years. According to one parent, "Taking an active part in my child's education has been furthered by my participation in this program. I feel that this important relationship will continue through my child's school-age years" (Family Learning Program, p.4).

According to Harold Hovey, in a paper written for the National Association of State Budget Officers, the cost of a program for first-time, low-income, high-risk parents of infants would vary from $200 per child to $1,000 per child depending on the program design. For example, the less expensive program might use low-cost labor, e.g., other low-income parents and volunteers, and have relatively narrow eligibility standards.

Other models for parental involvement in early childhood education include Illinois' Parents Too Soon Program for prevention of teen pregnancy. If teenagers become pregnant, a program is in place to teach the new parent effective child care skills. South Carolina's model Early Childhood Centers have a home-based component. In Brownsville, Texas, a prekindergarten program for children from non-English-speaking homes heavily involves parents who attend instructional television programs with their preschool children. Suggested follow-up activities further encourage the parents' teaching role at home. The preschoolers showed gains on the Cooperative Preschool Inventory by the end of the project year ("Brownsville Prekindergarten Project"). Hill House Association in Pittsburgh, a nonprofit organization serving a low-income area of the city, offers a child care program for two-and-a-half- to five-year-olds, involving not only parents, but grandparents as well, in a value-oriented curriculum (Taylor).

Research demonstrates the positive effects of parental involvement in preschool programs. One study of parent/child development centers found very effective parent/child programs associated with improved IQ scores at age four (Andrews). An early intervention program for low-income black mothers with children from eighteen to forty-four months old demonstrated improved verbal skills and IQs. Alan Fogel argues that child development centers may improve the home care environment, especially if the program is designed to fit the cultural context of the target population. Douglas R. Powell recommends that parental involvement in early childhood education programs treat the parent as a partner in a collaborative relationship.

A 1984 conference sponsored by Project Zero to Three of the National Center for Clinical Infant Programs brought together representatives from ten

states that have been developing comprehensive programs for disabled and at-risk children from birth to age three. The publication resulting from the conference, "There Ought to be a Law? Ensuring State-Wide Services for Disabled and At-Risk Infants and Toddlers," summarizes state laws and regulations regarding preschool special educational services for this group of children, predominantly physically handicapped. At the time of writing, six states (Iowa, Maryland, Michigan, Nebraska, New Jersey, and South Dakota) mandated services beginning at birth.

Public School Involvement in Early Childhood Education

State and local school systems are becoming involved in early childhood education, either through providing or leasing unused classrooms for externally sponsored preschool and day care programs, or through school-sponsored programs. Some of these target the educationally disadvantaged. Demands for day care and preschools emanate from several sources. Existing child care centers serve a mere 1.5 million of the 9 million preschool-age children whose mothers work and schools are viewed as potential providers of additional day care services. Handicapped preschool services are mandated by the federal government (Section 504 of the Rehabilitation Act), the middle class is demanding early academic preparation for school success, and early childhood education programs are viewed as a way to improve educational readiness for the educationally disadvantaged. Despite these demands, involving public schools in the delivery of preschool education is viewed with skepticism by some and applauded by others.

Advantages

With declining school-age enrollments, many public schools have classroom space for preschools, lowering capital costs through the use of existing school facilities (National Black Child Development Institute). The Kramer Project preschool in Little Rock, Arkansas, demonstrated the advantages of helping to "bridge the chasm" from preschool to kindergarten or first grade (Caldwell). Early childhood expert Barbara Bowman suggests public schools could play a central role by providing early childhood consultants to work in child care centers. In addition, public schools can use cable TV to demonstrate "appropriate academic skills and activities" to parents and home care providers (Bowman, p.30). Head Start programs are occasionally housed in public schools, and many states supplement federal money to serve an expanded at-risk population.

Disadvantages

The appropriate role of public schools in early childhood education is still under debate. Day care providers express concern that the public schools are too structured, too authoritarian, and too focused on mental skills at the cost of broad development to offer programming suitable for preschool youngsters. The issues of transportation and multiple care givers for children of working mothers is raised in regard to one-half public school preschools. James Levine of Bank Street College argues that school facilities are not necessarily good preschool facilities. Others contend school quality through standardized certification does not assure the quality needed for preschool day care.

A damaging case against the role of public schools in early childhood education has been made by the National Black Child Development Institute (NBCDI). The NBCDI report, "Child Care in the Public Schools: Incubator for Inequality?" questions public school-sponsored preschool programs. NBCDI argues that public schools have been ineffective in educating black children and questions whether schools can adequately educate black preschoolers. NBCDI fears public schools might transfer existing weaknesses, including racism, to the preschool system. Additionally, they express concern that black advocates will lack a policy-making role in the public school preschool movement.

The role of public schools and child care was the theme of a 1984 conference at Spring Hill Center attended by numerous early childhood education specialists. While acknowledging that public schools have some responsibility for early childhood education, extended day care for school-age children was viewed as the first priority and starting point for involvement by the schools. Great care must be taken to avoid racism and classism in public school-sponsored preschool programs. One speaker at the conference expressed the view that "the excellence movement's emphasis on highly structured academic preschool programs" was a negative development (Kirst 1985, p.31). Despite some negative comments, a consensus was expressed on wholistic programming "from preschool to school years and from school day to extended day" ("Child Care and the Role of the Public Schools").

State Preschool Programs

A variety of state-funded preschool programs are in place at this time, and most are targeted to at-risk populations. California spends $34.5 million to provide preschool programs for children from low-income or disadvantaged families. New York's prekindergarten program began in 1966. In 1984-85, half-day preschools served 10,000 low-income four-year-olds (Language and Learning Improvement Branch, p. 11). Illinois (1986) authorized $9 million to provide individual assessment of readiness for children deemed "at risk of academic failure" (Morado). In addition, Illinois (1985) adopted a preschool program targeted to at-risk three- to five-year-olds. Nonprofit agencies can be service providers while school districts can request money to establish all-day rather than half-day day programs. Prekindergarten teachers must be certified with a four-year degree in early childhood education or, at minimum, a high school degree. As a part of its educational reform package, Texas began funding early childhood education programs for four-year-olds in September 1985 (Harrison and Magri). Local school districts have the option of establishing preschool programs for four years unless the district identifies fifteen or more non-English-speaking or low-income children; in the latter case, the local school district is required to offer the preschool program.

South Carolina's program for educationally disadvantaged four-year-olds is considered a model program. Child development centers provide half-day programming although incentives are given to school districts that establish full-day programs and/or provide transportation services. By 1990 South Carolina will serve 10,000 youngsters at a cost of $11 million. Research regarding the academic performance of children attending child development

centers has found that, by first grade, they are on a par with other children. When compared with low-income children who have not attended the state-funded preschool program, the preschoolers were significantly more ready for first grade (Schweinhart and Barnett).

Through its Extended Elementary Education Program (EEEP), Maryland has been providing prekindergarten experiences for four-year-olds "with a high potential for school failure" since 1978. By 1985 the program was offered in fifty-eight schools. A longitudinal study of the effects of the EEEP demonstrates positive standardized achievement test gains and improved classroom reading performance for EEEP youngsters compared to nonpreschool groups. According to the study, EEEP children are less likely to be retained or assigned to special education classes. Estimated savings from the lowered retention rate, alone, are estimated at $2.2 million (Language and Learning Improvement Branch, p. 35).

Several other states are involved in addressing the issue of early childhood education, in particular for educationally disadvantaged children. Ohio has allocated $250,000 for nine model preschool programs. Massachusetts is funding education for three- and four-year-olds; 75 percent of the funds are targeted to low-income children. Programs can be half- or full-day and offered either by the schools or nonprofit groups (Koshel, "State Options"). New Jersey offers preschool programs for children considered at risk or handicapped. Under the Tennessee Governor's Healthy Children Initiative, prekindergarten programs for educationally disadvantaged preschoolers were tried in five locations during the summer of 1985 ("Executive Summary"). A special commission in Connecticut has recommended mandatory early childhood programs for handicapped and at-risk children. In the early 1980s, Pennsylvania began reimbursing school districts for prekindergarten programs for four-year-olds.

Oklahoma instituted prekindergarten programs on a "first come, first served" basis in 1980. Texas provides support for districts offering preschool programs for four-year-olds. The program is mandatory in districts with high proportions of non-English speaking or low-income families. The Michigan legislature appropriated $1.2 million for early childhood education programs on a pilot basis beginning in 1985. Washington state has begun administrative planning for offering preschool education to 5,000 at-risk four-year-olds (Harrison and Magri, p. 15). A New York City Commission on Early Childhood Education (1986) recommended a program of formal instruction for all the city's four-year-olds. The program, to be inaugurated in 1986-87, will enroll an additional 10,000 preschoolers per year, starting with the most educationally at-risk. Costs of an ongoing program are estimated at $2,750 per child. The commission estimates the preschools can generate savings of up to $10,000 per child on remediation costs and $50,000 per child on lifetime special education programs (Tugend, p. 13). At the first readiness hearing, Dr. Nancy Curry expressed concern that group care for the very young, regardless of setting, be based on the child's rhythm with a child-centered, rather than a highly structured academic, curriculum.

Head Start

The federally funded Head Start program, begun in 1965 as a six-week summer program and later expanded to a full-term of preschool for children of low-income families, sometimes is supplemented by state funds in an effort to promote educational readiness for at-risk youngsters. The goal of Head Start is "to bring about a greater degree of social competence in children of low-income families. By social competence is meant the child's everyday effectiveness in dealing with both present environment and later responsibilities in school and life" (McKey et al., p. 2). Still, the academic benefits of Head Start are a matter of debate after twenty-one years.

Since the inception of Head Start, research efforts have sought to determine the effects of the program on its participants. The Head Start Synthesis Project (1985) combines the results of many studies through a statistical technique known as meta-analysis. The project confirms that the academic benefits of Head Start are short lived. By third grade, Head Start graduates perform at or below grade level. Nonetheless, Head Start youngsters are less likely to be retained a grade or assigned to special education classes. Immediate positive effects enhance the youngsters' self-esteem, achievement, motivation and social behavior, all clearly related to Head Start goals. Head Start graduates are healthier, have improved motor development, and have benefited from dental services (McKey et al.).

In general, the academic benefits of the program demonstrate that it helps prepare at-risk children for school, even though the advantage fades away by the upper elementary grades. The comprehensive design of Head Start programs, providing health, social services, education, and parental involvement for children from low-income families, has received considerable praise. For example, the Children's Defense Fund advocates the adoption of Head Start principles in designing child care for educationally disadvantaged youngsters (Blank). Lawrence Schweinhart and David Weikart disagree with the negative findings of the Synthesis Project, believing the essential point is that "adequately funded Head Start programs run by well-trained, competent teachers can achieve the level of quality" that will produce long-term benefits (Schweinhart and Weikart, "What We Know so Far").

Several states supplement Head Start funding with state appropriations in order to expand coverage to additional low-income preschoolers. For example, Maine has appropriated $1.7 million to expand Head Start services so every county can serve 25 percent of eligible youngsters (Blank). California Head Start programs work with public schools through sharing of facilities and supplementing funds ("School-Run Preschools," p.2). In Massachusetts, schools may contract with Head Start to provide state programs for at-risk children. Other states, including Alaska and Washington, fund Head Start programs over and above federal support (Schweinhart, "Policy Options"). Jeff Koshel suggests the cost of upgrading Head Start staff, which could include supplemental training, also might be provided by the states (Koshel, "Children's Policy").

Other Preschool Programs

The Appalachian Educational Lab established a home-based early intervention program in which parental participation was a key element (Gotts). Home visits were supplemented by a mobile preschool that visited the neighborhoods periodically. Post-participation academic gains for the children were significant at grades one and two but had disappeared by grade three. The Home Instruction Program for Preschool Youngsters (HIPPY) was developed in Israel as a pilot program in 1969 ("FYI"). Expressly designed to aid educationally disadvantaged children, the program has been adopted recently in three locations in the United States and in Canada, Chile, and Turkey. Richmond, Tulsa, and Glendale, Arizona, are experimenting with the HIPPY model at this time.

Kindergarten Programs

Traditionally, kindergarten programs have represented the major state effort at early childhood education. At this time, seventeen states require local school systems to provide kindergarten programs and assist with funding; however, students in those states are not required to attend kindergarten. School districts in twenty-seven states are permitted by state law to provide kindergarten (Koshel, "State Options"). In three states -- Florida, Kentucky, and Louisiana -- successful completion of kindergarten, or passage of a readiness test, is a requirement for first grade admittance (Schweinhart, "Policy Options," p. 10). Finally, three states -- Delaware, South Carolina, and Virginia -- mandate kindergarten attendance (Koshel, "State Options"). Recently, states have allowed school systems to offer the alternative of all-day kindergartens. In 1984, thirty-two states had some operative full-day kindergartens.

Massachusetts has adopted an "enhanced" kindergarten program, in addition to a transitional first grade. Kindergarten funding can be used in several ways, including parent outreach and improved staff/child ratio. Research on South Carolina's kindergarten program found nearly twice as many children who attended kindergarten were ready to enter first grade as were children without kindergarten experience. Almost three times more children without kindergarten were retained in first grade than were kindergarten attendees (Schweinhart and Barnett, p. 1). New York City has a full-day kindergarten program.

Kentucky has adopted the Chapel Hill Outreach Project model in designing an individualized kindergarten program for at-risk children (Kentucky Department of Education). The Kentucky State Department of Education offers participating school districts technical assistance for screening prekindergartners. As a result of the screening, each youngster identified to be at risk is mainstreamed into a regular classroom. However, an individualized plan is developed for each targeted child accompanied by appropriate curriculum.

In addition, Kentucky has adopted unique accreditation standards for local kindergarten programs. Each kindergarten class must offer individual choice hands-on discovery experiences for one-third of the kindergarten day, must

provide five active learning centers, and must purchase certain state-recommended equipment. The mandates represent the departmental philosophy of designing kindergarten programs sensitive to the mental stage development of youngsters.

According to Harold Hovey, writing for the National Association of State Budget Officers, providing kindergarten for all five-year-olds would involve costs primarily for the 16 percent of five-year-old children (approximately 550,000 youngsters) not in school now. Multiplying this number by the estimated cost per child (about $2,000) indicates an additional $1.1 billion would have to be spent nationwide to provide kindergartens for all children.

Full-day Versus Half-day Kindergarten

Full-day kindergarten programming is seen as an attractive option for children by some (Rothenberg). It may save on transportation costs, and the school day is more relaxed and unhurried, with opportunity for more experiences and additional time for screening and assessment. In areas of enrollment decline, classroom space is available for the full-day programs. For working parents, the extended school day can be a boon. In a review of ten research studies, Thomas Stinard found full-day attendees had strong academic advantages over half-day children with no adverse effects (Rothenberg). Today's children are said to be able to cope with a longer day away from home and are used to spending time out of the home with peers. On the other hand, opponents feel half-day programs are less expensive, less stressful, and more appropriate for a five-year-old's attention span. They point out that full-day programs may turn into glorified child care programs. And if full-day kindergartens are offered, care must be taken to provide a developmentally appropriate, nonacademic curriculum with carefully paced activities.

Positive Effects of Kindergarten

Bobby J. Woodruff conducted a study of all Tennessee eighth graders (64,000) to determine the impact of kindergarten attendance on later academic performance (Sava, p. 9). Sixty-six percent of the students, representing all socioeconomic backgrounds, had attended kindergarten. Based on Tennessee Basic Skills Test scores, kindergarten attendees outperformed nonattending classmates eight grades later. In addition, Woodruff examined retention rates for a smaller sample of 6,000 fifth through eighth graders and concluded that retention rates were reduced significantly for kindergarten attendees. The cost savings to Tennessee were estimated at $2.5 million per year (Sava, p. 9).

THE DEVELOPMENTAL READINESS ISSUE

A word of caution regarding early childhood education programs, including kindergarten, is expressed by child development experts concerned about the developmental readiness of children for formal education. According to these authorities, children must reach certain levels of physical and mental (and possibly social) maturity before they are ready for formal education. Pushing youngsters into formal learning before they are ready may be counterproductive, if not damaging, for the children. Chronological age is no

guarantee of school readiness, they say. They contend that children need a "correct start, not a head start." The Massachusetts Elementary School Principals Association, in written testimony for the Readiness Task Force, stressed the importance of school readiness and developmental placement for incoming kindergarten students and advocated screening prior to school entrance.

One body of research has focused on the implications of starting children too early. According to Marian King, Hemphill discovered physical consequences for enrolling chronologically younger children in school including nervous disorders, poorer eyesight, and lack of adequate neurophysical coordination. A 1980 study by Charles Campbell based on school entrance age related to school performance found that children who were chronologically more advanced when starting school scored higher on tests through grade three. K. D. Olson conducted research (1981) that indicates developmental age is a better predictor of success on certain subtests than age. Chip Wood's 1982 study of kindergarten-eligible children found developmental age a significant predictor of kindergarten success or failure. James Uphoff and June Gilmore (1985) compared chronologically older with younger kindergartners. The older youngsters received higher grades and better scores on standardized achievement tests, and were less likely to be retained in school and less likely to be placed in special education classes.

Estimates of the proportion of children lacking readiness for formal schooling varies. Jacqueline Haines of the Gesell Institute cites studies suggesting one-third of children legally eligible to enter kindergarten are not developmentally ready to do so. Considering the new academic standards, more academic work required in kindergarten and full-day programs, "it becomes increasingly important that all children who do start kindergarten should be behaviorally ready" (Haines, p. 3). Louise Bates Ames, writing in 1978, concluded about 50 percent of youngsters are placed one or two years ahead of their developmental age due to lack of readiness at school entrance.

Developmental specialists emphasize the importance of neurological findings regarding development, stressing that each child's nervous system develops at its own pace. It is not possible to speed up such development. Myelination is a neurological maturity process each individual must go through; fatty tissues (myelin), not present at birth, gradually develop to sheath nerve fibers. Until the process is completed, a child is physically unready to undertake certain functions, such as walking. According to Zikes, "There is nothing that can be done to speed up this (physical) readiness. Only time can do this" (King). In addition, maturity of visual processes varies according to the child, and some children may not have visual capability of focusing appropriate to learning to read.

Experts concerned with developmental readiness suggest a variety of solutions to ensure that children do not begin formal training before they are ready. They contend that paying attention to this issue will result in cost savings through reduced retention rates in higher grades and lowered special education classes. One conclusion is if preschool programs are established, they must allow the child to develop at his or her own pace within a stimulating environment, such as the Kentucky kindergarten model, rather than

forcing the child into formal learning too early. Age of entrance into kindergarten is very important. Children with summer or spring birthdays do better than children with fall birthdays, so the cut-off date needs to be set before fall. According to Professor David Elkind, a child development specialist, maturation is more important than readiness.

Screening for developmental readiness is another mechanism for avoiding the negative effects of early placement; if, after screening, a child is found to be too immature to begin kindergarten, several options may be offered. Parents may be asked to delay entrance into kindergarten for developmentally young children. Two-year kindergarten programs are offered as one alternative for "young" kindergartners. The first year may serve as a kindergarten readiness experience and the second, as a normal kindergarten. Transitional classes between kindergarten and first grade for children tested as developmentally immature are offered as another solution. Ungraded primary years in which youngsters move at their own pace through the first years of schools is another option. Finally, retaining children in kindergarten or first grade, preferably not beyond those grades, is a solution in school districts lacking special classes. Elkind stresses the importance of providing educationally appropriate programs for kindergartners and feels the issue is one of "good education versus miseducation."

State Models

State and local education agencies have begun to consider developmental readiness in school entrance, kindergarten, and primary grades policies. All options described above have been adopted in a variety of school systems across the country. South Carolina utilizes developmental screening to determine eligibility for attendance of its four-year-old preschool classes. The screening process also assists school districts in developing appropriate programs for four- and five-year-olds and first graders. Tennessee has developed a pre-first grade screening program that will become mandatory in 1986-87. Oklahoma, in 1985, became the first state to adopt the criterion of developmental rather than chronological age for school entry. The Oklahoma Association of Elementary School Principals played an active role in bringing forward the issue of developmental readiness. The Kentucky kindergarten program is sensitive to the child's stage of mental development. Local school districts have instituted developmental kindergartens (Capac, Michigan), earlier cut-off dates for school entrance (Skyview Elementary in Windsor, Colorado), Young Fives classes (Bridgeport-Spaulding, Michigan), and transitional classes between kindergarten and first grade (Norman, Oklahoma) (Gessell Institute staff). These programs have resulted in lower retention rates, reduced remedial assistance, and greater readiness of youngsters for first grade work.

Early childhood education has been offered as a powerful solution to student learning difficulties and for major dilemmas facing our society: crime, high dropout rates, welfare, and waste of human potential. Yet, many express caution in viewing early childhood education as an ultimate panacea, pointing out that the most effective programs are costly and require highly trained and qualified teachers. Others note that children cannot be pushed into formal learning; early childhood education must move at the pace and

developmental level of the child. Head Start has not had the sustained academic benefits once hoped for. Despite these doubts, some research has demonstrated great cost-effectiveness of quality preschool programs resulting from savings on retention and remediation programs, lower dropout rates, and other factors. Given the demographic composition of the school population, these findings become crucial. Policymakers and taxpayers cannot expect instant results; patience is required.

HELPING STUDENTS STAY READY

The question of how best to assist at-risk students in meeting the new educational standards throughout their elementary and secondary school years is best addressed by a review of research and practices on compensatory education. This task can be prefaced by the good news reported in "Trends in Educational Achievement," recently released by the Congressional Budget Office. This report offers renewed hope for the educational achievement of American students and at-risk youngsters in particular. Beginning in the mid-1970s, scores on standardized achievement tests began to demonstrate marked improvement, showing up first in upper elementary grades and moving into higher grades at the rate of one grade per year. For minority students, the gap on average test scores relative to white students has been narrowed. In schools and districts characterized as low achieving, average test scores have been increasing since 1970. Gains in math and reading scores, as measured by the National Assessment of Educational Progress, have occurred in central city schools. The report states that "by 1981, a fourth to a third of the gap in test scores between disadvantaged urban communities and the rest of the nation had been overcome" (Koretz, p. xix).

In general, researchers have been rather pessimistic regarding the benefits of compensatory education programs. The attitude expressed toward remediation is that "some things work some of the time." In fact, the mere adoption of an intervention program may result in positive gains for the children as they respond to increased attention and the novelty of a new experience and as teachers enthusiastically deliver a new program. Willis Hawley et al. argue the degree of causality between program and performance is often unclear.

A study in progress at the Office of Educational Research Improvement of the U.S. Department of Education examines three data bases to determine academic effects of the federal government's compensatory education program, Title 1/Chapter 1 (Demaline). Preliminary findings show a small positive effect on standardized achievement scores with greater gains for math than for reading. Compensatory education appears to be most powerful for the higher achieving of the low-achieving group. Research efforts to assess the impact of remediation programs are essential to finding what works for at-risk youngsters, and state policymakers should consider ongoing evaluation efforts of compensatory education. South Carolina has the highest per capita funded compensatory and remedial basic skills program in the country and has undertaken assessment of the program's impact. Initial findings from the first year show gains two to four times what federal guidelines consider satisfactory (Division of Public Accountability).

A variety of compensatory methods have been subjected to research, mostly at the elementary school level. Janella Rachal and Lee Hoffman analyzed Louisiana's Basic Skills Testing program and discovered remedial instruction, combined with grade retention, corrected skills deficiencies for the majority of students. Bank Street College personnel advocate hands-on experiences for students, dramatic and block play, personal writing, and group trips. John Evans of Educational Testing Service, speaking at a conference on compensatory education, championed direct instruction as a means of obtaining higher basic skills competency (Gross and Gross). Carroll and Bloom advocate active learning time as the most powerful and direct determinant of achievement (Gross and Gross).

The American Association for the Advancement of Science report "Equity and Excellence" (1984) identified exemplary programs for students, namely females and minorities, at risk for math and science education. Career awareness programs were crucial to intervention efforts for female students, while redressing academic deficiencies and stressing academic preparation in science, math, and communication was most effective for minority students. "The evidence gathered to date indicates that if minorities and women are provided early, excellent, and sustained instruction in these academic areas (all other factors being equal), their achievement levels parallel those of white males." The Philadelphia Regional Introduction for Minorities to Engineering (PRIME) involves business, government, civic organizations, universities, and public schools working together to attract minority students to the engineering field. Students are targeted beginning at grade seven and continue participation through high school; 60 percent of participants since 1977 have chosen fields in engineering and technology. The program costs $2.40 per student per week and has had the added benefit of attracting a significantly higher proportion of minority students to academic-track high school curricula.

Joan Lipsitz studied four effective middle schools and found, in general, compensatory programs "got in the way" in such schools. Lipsitz argues that a good remedial program can accomplish little in an ineffective school and believes the crucial variable in helping at-risk students is overall school quality. "In these excellent schools there is a rising tide for all students," according to Lipsitz, with gains experienced across the board for all achievement levels.

The effective schools movement is flourishing at this time and advocates stress the importance of following basic principles of good building and classroom management. Additional components of effective school principles include high expectations of students, irrespective of their socioeconomic background, agreement among principals, teachers, and parents regarding school instruction goals, consistency in school objectives, and use of direct instructional techniques (McDonnell). Research on effective schools demonstrates that the way resources are used is as important as the absolute level of resources.

While the movement has its critics, in general, the attitude prevails that effective schools will aid all students including those at risk. In fact, compensatory programs will gain in effectiveness only when schools become more

effective. (U.S. Department of Education). Carl Bereiter, in "The Changing Face of Educational Disadvantagement," contends that nonspecific compensatory education may be the only practical route for school systems to follow.

The Effective Compensatory Education Sourcebook describes a variety of programs for use with educationally disadvantaged students. Mastery learning requires students to demonstrate proficiency prior to moving to the next learning level. Individualized instruction establishes specific learning objectives for individual students and paces activities and curricula to the student's own learning rate. Cross-age tutoring (usually older students tutor younger peers) is considered an effective and inexpensive method of assisting at-risk students. Cognitive education still is being developed for classroom use. This method teaches students how to learn; some experts believe students lack of success in later grades is due to poor and ineffective ways of "learning to learn" in primary grades. Computer-assisted instruction is an increasingly popular method of remedial work with demonstrated effectiveness. Parent involvement is suggested as an additional option that can supplement any of the above methods. Bereiter states that youngsters need varying amounts of help with learning; educationally disadvantaged students require more than ordinary assistance with academic learning. A successful compensatory education program provides such assistance.

Parental involvement plays an important role in supporting compensatory programs and helping students who are educationally at risk. The dilemma is that many parents of at-risk students have low educational attainment and may be non-English speaking. A few research studies support a direct link between student achievement and parental involvement in school (U.S. Department of Education). Indelicato found parent and community involvement was positively related to student achievement with parental tutoring enhancing the effect. Sinclair (1981) discovered achievement gains when parents participated in instruction.

A collaborative relationship between schools and parents is recommended rather than a "we versus them" philosophy. According to Dr. Carol Cartwright, testifying at the third readiness hearing, professionals have changed their attitudes, realizing "parents are partners and parent involvement is critical." Hedda Sharapan, associate producer of "Mister Rogers' Neighborhood," argued at the same hearing for parental involvement. Parents are the child's base and, although for at-risk children the base may be deteriorated, it is still the child's and the parents' need to be involved in school. However, high-risk parents may have faced great difficulties in school, so care must be taken in linking them in a supportive fashion. In addition, Sharapan recommended teacher in-service programs on parent involvement.

Community schools are a viable alternative to bring parents into the schools. They offer a variety of adult education programming, recreation and arts, senior citizen activities, consumer education and nutrition classes, and day care programs, to name a few. Parents drawn into the schools, secondarily, through these expanded activities, may develop closer state programs for at-risk students.

Since 1984, Pennsylvania has administered Testing for Essential Learning and Literacy Skills (TELLS) to all third, fifth, and eighth grade pupils. Nonpublic schools can elect to participate. TELLS measures basic math and reading skills, and scores are used to identify students, early in their school careers, who need remedial help. In the program's first year, 27 percent of third graders were found to need remedial assistance in reading and 19 percent in mathematics. The legislature appropriated $7 million for remedial programs and an additional $17 million for supportive programs such as strengthening curriculum, improving student achievement, increasing standards, and remediation. Remediation activities are expected to adhere to current principles of effective schooling. School districts may choose from a variety of formats in providing remediation such as pull-out programs, in-class help, summer or expanded day programs, self-contained classrooms, and time block assistance (Pennsylvania Department of Education 1984).

South Carolina offers compensatory education for students grades one through six whose Basic Skills Test performance is at or below the twenty-fifth percentile. Remedial education for low-scoring students grades two through twelve is provided, as well. Local schools may use a variety of instructional techniques and organizational approaches to remediation, for example, directed teaching, large and/or small group instruction, computer-assisted instruction, independent study, and tutoring. An important component of the South Carolina program is careful evaluation and research of these efforts, thereby substantiating progress and providing data for future planning (Division of Public Accountability).

Comprehensive educational reform, adopted in Massachusetts in 1985, addressed assistance for at-risk youngsters in meeting the new educational standards. Students are tested on basic skills at three grade levels for the purpose of identifying students who need remediation. Essential skills grants help school districts with the cost of remedial and dropout prevention programs, targeting districts with high proportions of at-risk, low-income, and low-scoring students.

New Jersey's basic skills testing is used to identify students needing remediation and to deny high school diplomas to low-scoring students. Of 120,000 ninth graders initially tested, about 18,000 failed, triggering a flurry of money and remedial activities. By 1986, the number had been reduced to 200 (Swissler). Gov. Thomas Kean proposed an additional $48 million to assist districts with providing remedial help for students identified as needing help with basic skills ("New Jersey Governor Asks for More Funding").

Minnesota enacted a comprehensive school effectiveness plan in 1983 to "maintain and improve the educational quality of Minnesota schools." Begun as a pilot program, the plan involved leadership team training and staff development for the purpose of achieving organizational and instructional characteristics that research has identified as components of effective schools (Minnesota Department of Education).

Outcome-Based Education (OBE) has become popular in Utah after a series of OBE workshops in 1984 promoted its use for rural schools, in particular. Students at several rural schools using OBE have shown positive gains as

measured by standardized test scores. For example, White Horse High School in San Juan County, with a 98 percent Navajo student population, has noted positive results from this technique. Students averaged math gains of 1.04 grades in a five-month period (Utah State Office of Education).

Project Impac is an Arkansas program using computers for basic skills instruction. About 200 classrooms were monitored for student performance as a result of computer-assisted instruction. Students were found to make gains from two to five months, depending on the format of the program. Improvements were noticeable for lower performing students, although more marked in math than reading. Students in a Project Impac classroom must be on the computers every other day, twelve to twenty months for twenty-six weeks; no more than two subjects can be covered. Evaluation occurs every six to nine weeks ("State Finds Answers").

Indiana has undertaken a statewide effort to reduce class size grades K-3. While local district participation is optional, about 98 percent of school districts are involved in the PRIME TIME program. The legislature has appropriated $32.9 million for the program although the costs are anticipated to be $55 million in 1986-87 as additional grades are brought into the program. An average teacher/student ratio of eighteen to one for K-1 and twenty to one for grades two and three strengthens individualized instruction in the early years and enhances immediate feedback.

Harold Hovey indicates the cost of remedial programs can be high or low depending on program design. The ratio of pupils to instructional personnel has dropped considerably over the past two decades: the pupil/teacher ratio dropped from twenty-eight to one in 1960 at the elementary level to about twenty to one in 1986. Smaller classes allow teachers to work individually with students and additional staff can allow the child to be taken out of the classroom and worked with on a one-to-one basis. Dropping the ratio in elementary education from twenty to eighteen would require about 10 percent more teachers or 210,000 teachers at $40,000 a piece (average salary of $26,500 plus benefits, increased use of supplies, and overhead), resulting in a total cost nationwide of $8.4 billion.

THE HIGH SCHOOL DROPOUT PROBLEM

Failure throughout the school years can by itself, or in combination with other factors, lead to dropping out of school. Concern has been expressed that the new educational standards will push students out of school. Young people age sixteen to twenty-one are in a critical time of life, being trained and educated for future careers. This period of transition to adulthood has been labeled the "five-year dilemma" (National Governors' Association). Unemployment rates for youth in this category are high, and low education may be found in conjunction with unemployment. Leaving school at this critical juncture may severely limit future job options for a student.

Obtaining accurate statistics on the American dropout rate is difficult. Dropouts are defined in various ways, depending on the state or school district, making a clear determination impossible. Harold Hodgkinson estimates the dropout rate has increased from 24 percent to 27 percent during

the 1980s. Central city dropout rates are much higher, estimated at 40 percent to 50 percent (Wehlage and Rutter). Dropout rates vary by ethnic rate, gender, and socioeconomic status. Fourteen percent of white students, 24 percent of black, and 40 percent of Hispanic youths leave school before graduating (Hodgkinson, p. 13). Disadvantaged whites drop out at a rate exceeding that of disadvantaged black youths (Levin, p. 4). The typical dropout is male, poor, of minority status, has very low basic academic skills, and has parents who are disinterested in his progress and whose educational attainment is low. He is bored with school, alienated from it, and his family may not speak English (Hodgkinson).

According to Professor David Stern of Berkeley, the dropout syndrome is preceded by absenteeism and low grades. Dale Mann analyzed reasons for dropping out including financial reasons (particularly prevalent among males), family reasons (more common for females), and poor school performance. The High School and Beyond Study of 1980 sampled the sophomore cohort, providing information about dropouts before and after the decision to leave school. Interestingly, very few of eventual dropouts anticipated doing so (8 percent of Hispanics, 1 percent of blacks, and 9 percent of whites expected to drop out) (Wehlage and Rutter). Dropouts did not expect much from school, did not perform as well as peers on school tests, had lower grades, were more often truant, and were more likely to be discipline problems. Given such negativism, it is no wonder these students leave school. In fact, according to the survey, leaving school enhances self-esteem, especially for Hispanic dropouts (Wehlage and Rutter).

Programs targeted to retaining potential dropouts are found throughout the country; still, the dropout rate has remained relatively steady over the past twenty-eight years, despite the recent increase. Mann states "conclusive evidence documenting significant program effects is even more rare than careful evaluation in this field (of dropout prevention)" (Mann). Stern recommends school enterprise programs, youth service corps, and independent study programs as alternatives for dropouts. He suggests using computers to alert school officials to potential dropouts and using attendance patterns and dropping grades as predictive variables. Mann recommends interventions as early as elementary school for dropout prevention. Small classes, much personal contact, high expectations by teachers, and concern and support from teachers are advocated by Gary Wehlage and others. Dr. Matthew Prophet, superintendent of Portland Public Schools, testifying before the Readiness Task Force, stressed that small class size, a strong vocational emphasis, job-related instruction in the curriculum, and learning programs outside the classroom can be effective in retaining potential dropouts.

State Programs in Dropout Prevention

In light of the many national educational reform commissions and their counterparts at the state and local level (280 excellence in education commissions by early 1984; MDC, Inc.), it is little wonder that public debate and initiatives have focused on instituting more rigorous standards in American education with little regard for students at risk of failure or dropping out of school. When MDC, Inc. surveyed state educational excellence commissions (fifty-four in thirty-two states), a mere 14 percent of these

bodies were planning dropout prevention recommendations. In addition, Hodgkinson noted the lack of state action in 1984 to provide remedial help to students failing to meet higher standards.

More recently, a wave of concern for educationally disadvantaged students has swept the states as, through word and deed, state leaders are demonstrating a commitment to helping educationally disadvantaged students. Exciting and innovative state and local dropout prevention programs are multiplying rapidly. States, in some cases for the first time, are gathering statistics on dropouts and truants in order to develop more effective strategies to prevent the problem. In other states, pilot programs are being analyzed to determine what works in dropout prevention, and dissemination efforts are underway to spread this information to educators. Interagency cooperation between education and other agencies, such as employment and training offices, is necessary to get adolescents back on track, and many states have initiated coordinated efforts for dropout prevention. In sum, state and local leadership is taking the initiative to "turn the tide" (the slogan of the Pennsylvania TELLS program) so all students will benefit from educational reform and no one will be left behind.

The California Department of Education has set a goal of reducing the high school dropout rate 25 percent by 1990 (Honig). School personnel are being trained to work with high risk youth, a media campaign is underway to encourage potential dropouts to stay in school, and local school districts are being allowed more flexibility in using state funds for dropout prevention. A special counseling program will assess the progress of tenth grade students toward graduation requirements. Troubled youngsters are followed up with special assistance. A Middle Grade Task Force has been established to study the special academic problems of junior high youth. Educational clinics, alternative educational work centers, and a motivation and maintenance program K-12 may work to help the state meet its goal.

Wisconsin recently passed a "children at risk" law aimed at truancy and dropout prevention. The law mandates planning by all Wisconsin school districts with the goal of meeting employment, education, personal, and health needs of at-risk children. At-risk youth are defined as teen parents, dropouts, truants, and those in trouble with the law. Wisconsin has several other programs in place, such as the Wisconsin Youth Initiative, a cooperative effort by the Milwaukee Public School system and seven community-based organizations to train and educate at-risk youth. The legislature has appropriated $500,000 annually for this program. The Department of Public Instruction has published a program resources guide for at-risk children. Among Ohio's efforts to combat the dropout problem are the Ohio Youth Conservation Corps and "Operation Jobs for Youth" -- seven Governor's Demonstration Projects to provide basic skills remediation, drug and pregnancy prevention, employment, and GED and vocational training for dropouts. The projects are funded by an Ohio grant of $50,000 from Job Training Partnership Act 8-percent funds.

Washington state subsidizes for-profit educational clinics that provide an individualized program with precise diagnosis of needs. The clinics serve dropouts and potential dropouts and do not have to meet usual state

regulations for length of school day and course offerings. Positive results have been achieved and the cost/benefit ratio is estimated at $1.11 for every $1 of state money invested (Brown). The Florida legislature established a Center of Dropout Prevention at the University of Miami in 1985. In addition to collecting statistics on the dropout problem, the center serves as a clearinghouse of information and model programs. Dropout prevention legislation passed in Florida (1986) requires each school to develop a comprehensive dropout prevention plan. Indiana has raised the compulsory school attendance age from sixteen to seventeen (Public Law 367-1985) and is undertaking an analysis of the effects of this change.

In 1985 the Illinois General Assembly demonstrated a new commitment to at-risk youth by increasing the funding of alternative education programs from $1 million to $10 million. The additional appropriation is used to provide dropout prevention services, such as diagnosis, remediation, parent education and vocational education in conjunction with the more than sixty alternative education programs. Kentucky is working with the Appalachian Regional Commission to decrease its high dropout rate. The Appalachian Dropout Prevention Team pilot project features one team member working directly with potential dropouts, and a second team member working to develop community support for staying in school. Maine has passed a new Truancy Act, effective in fiscal 1987, to encourage local school districts to develop programs for dropouts and at-risk students. Potential or actual dropouts must be reported by local school units, and school improvement plans, as mandated by educational reform measures, must include strategies for dropout prevention, alternative education, and returning dropouts to school.

Maryland's major attack on the dropout phenomenon is threefold: alternative programs provide long-term assistance for small numbers of at-risk students; special pupil services programs are short-term, direct interventions -- for example, time-out rooms and special guidance programs; the total school intervention program in several Baltimore city elementary and secondary schools is based on the effective schools model. The latter is aimed at improving school climate, student attendance, and basic skills acquisition. The Michigan Youth Corps program has recently instituted incentives for participants to complete the GED.

North Carolina created a $15 million state dropout prevention program in 1985 as one dimension of its educational reform package. The Statewide Dropout Prevention Coordinating Program (1984) offers a number of services, such as extended day programs, in-school suspensions, transition programs for the disadvantaged and handicapped, and alternative schools. Pennsylvania annually conducts a dropout survey through school counselors. As of 1985-86, twenty-five dropout prevention programs, funded with $1.5 million of federal vocational aid, offer counseling, remedial instruction, support services, and job training. In addition, the state has budgeted $1 million for a dropout prevention program for elementary students in 1986-87. Students who demonstrate dropout potential, such as truancy, grade repetition, and failure, will be the targets of this program. The Pennsylvania "Parents Be Part of It" campaign encourages parental involvement in their children's education. The Tennessee legislature has set a goal of reducing the state dropout rate by 20 percent by 1989. In Texas, a Community in School Program, operative in four

urban areas, coordinates state and local agency services to help students with high dropout rates.

The Atlanta "Community of Believers" program pairs low achieving students with volunteers from the business community who provide support and counsel. Portland city schools use districtwide testing to identify at-risk students as early as third grade, diagnosing the children's major areas of academic weakness. A Cities in Schools program in New York brings together schools, recreation agencies, juvenile justice authorities, family courts, social workers, and youth employment officers to attack the problems of dropouts and potential dropouts. The rural San Luis Valley schools in Colorado have developed a unified approach to dropout prevention, collaborating with each other, students, parents, and the community.

Many peer tutoring programs have been established in an attempt to reduce dropout rates. The Chesapeake, Virginia, school board adopted the priority of developing schools with holding power, and principals are evaluated on efforts to retain students. Special counseling is offered in the form of teachers serving as "big brother or sister" to potential dropouts, and seventh and eighth grade students identified as potential dropouts participate in intensive daily group counseling sessions (Bateman). A Detroit high school has started a "Twelve Together" peer support program. At the beginning of the ninth grade years, twelve students, selected at random (including high-risk and good students) form a covenant to help each other through high school. This commitment is taken seriously, and two counselors assigned to the group provide additional support. After three years, participants are found to have a lower dropout rate, higher grade point average, higher achievement, and a lower absenteeism rate (Blythe).

Competency-based programs are being offered across the country as "a self-paced system for delivering individualized instruction on an open-entry, open-exit basis" (National Governors' Association, p. 8). The Remediation and Training Institute has developed a Comprehensive Competencies Program, a mastery learning program primarily offered through computer-assisted instruction. The academic competencies component is geared to basic skills instruction from the most elementary level through college preparatory topics. A functional competencies component, also consisting of twelve levels, helps prepare students for career and job-related issues, and for family, consumer, and civic skills.

States using Job Training Partnership Act (JTPA) funds to develop competency-based programs include California, Colorado, Connecticut, Hawaii, Kansas, Ohio, and South Dakota. The Kansas model brings together JTPA representatives, program operators, the school system, and the private sector. This coalition has developed a set of youth competencies involving work maturity, job-specific skills, basic skills, and preemployment (National Governors' Association).

CONCLUSION

Preparing preschoolers for the challenges of American education, then helping them meet the upgraded standards of educational reforms throughout

their school careers is an enormous task for state and local leadership. Many Governors have articulated their commitment to assisting educationally disadvantaged infants and youth, pressing for programs to achieve this goal. The long-term benefits are substantial, resulting in reduced social costs and savings to taxpayers. States are actively pursuing a wide variety of models, pilot programs, innovations, and initiatives to improve the educational experience of all children, including those at risk of academic failure. If the American workforce is to possess the skills and training for the contemporary age, all children must be educated to their potential, and none must be left behind.

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STATE POLICY FOR AT-RISK CHILDREN: PRESCHOOL TO HIGH SCHOOL

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To become productive workers for the increasingly high technology, information-processing economy, all students in public schools need a substantively strong core academic program that emphasizes basic skills and knowledge, and development of higher level, analytic thinking skills. This focus needs to be supported by an environment of high expectations and high standards. The problem is that such an emphasis will put some students at risk, with many not learning the requisite skills and many others ultimately dropping out of high school. States need to adopt policies to provide at-risk students with extra programs and supportive services from preschool to high school to help them learn the skills needed for high school graduation and productive participation in the workforce. The following is an overview of a comprehensive set of state policies for at-risk students.

CHARACTERISTICS OF YOUTH AT RISK

Most at-risk students who fall behind academically ultimately drop out of high school. For every grade failed, for example, the probability of dropping out of school in a later grade increases by 40 to 50 percent; failing two grades increases the probability by 90 percent (Mann). The characteristics of at-risk youth who drop out of high school have been clearly documented by research (for example, Ekstrom et al.).

- **Alienation from school.** Dropouts and at-risk students tend to be alienated from schools and social organizations. Most have disengaged from both the affective and cognitive elements of the school culture.

- **Poor academic performance.** Dropouts or at-risk students in any grade tend to achieve below expected grade level standards, often are over age for their grade level, have failed courses on their record, are in remedial or low academic tracks, and have poor academic self-esteem. At the high school level, these factors make it difficult -- in the dropout's eyes, impossible -- to earn the number of course credits needed to graduate.

- **Difficult conditions in their immediate family.** Dropouts and at-risk children tend to live in one-parent families (usually with their mother), in families in incomes below the poverty level, in families with child abuse and neglect problems, and in families with low educational attainment and aspirations for their children. Higher percentages of at-risk youth are from minority families. Many at-risk teenagers, mainly girls, are parents themselves.

- **Personal economic conditions,** including the need to get a job in order to earn money.

In short, most at-risk children and youth have poor academic esteem, are low achievers, lack adequate supportive services and environments, and come from poverty or low-income backgrounds. Many effective programs for at-risk students intervene in the early years, thus preventing the academic failure

that often leads to dropping out of school. There also are effective programs for at-risk students at all stages of their schooling career.

The following identifies ways to address these issues under five umbrella policy categories:

- o Early Childhood and Extended Day Care
- o Parenting Assistance
- o Strong Regular Education Programs
- o Alternative Programs and Settings
- o Programs for Limited English Proficient Students

EARLY CHILDHOOD AND EXTENDED DAY CARE POLICIES

Public policy for child care services, preschool programs, and early elementary education is in a state of reassessment. Demographics provide one set of forces for this reassessment. About 60 percent of mothers with three- and four-year-old children are employed outside of the home. About 36 percent of three- and four-year-old children are enrolled in some type of preschool education program. Both of these percentages are rising. Therefore, many preschool children already are in preschool programs and even more need either child care or preschool programs, or both. The rising numbers of children in poverty and recent evaluations of the positive impact of high quality preschool programs for at-risk preschoolers provide another set of forces. There is a growing number of economically disadvantaged, at-risk preschoolers and evidence that intervention programs can have significant impact over the long term. As states continue to address the need to improve the nation's schools, reanalysis of preschool, child care, and early elementary education policies are in order, especially for at-risk preschool children.

Quality Preschool Programs for At-risk Four-year-olds

The interest in expanding preschool programs is not without controversy, though. The disagreement is between those who want to provide formal schooling to preschoolers and those who feel preschool children appropriately benefit only from activities focused on social development and academic readiness. Some argue, for example, for "pushing" schooling down a grade by turning kindergarten into a full-day program of academic studies for five-year-olds, and by making at least a half day of kindergarten available for four-year-olds. Early childhood educators, however, argue that it is folly to introduce formal education and instruction into programs for preschool children. They feel it is wise, nevertheless, to expand the array of services available for preschool children.

One leading expert on early childhood education, David Elkind (1981, 1986), argues that preschool children learn and think differently from older children and adults. He makes the distinction between formal preschool education and traditional early childhood education, the former involving

formal instruction and symbolic rules in teaching and the latter relying primarily on using active exploration and manipulation of concrete materials, the traditional early childhood education approach. Elkind concludes that there is no research base for arguing that the mental abilities of today's children are different from those of ten, twenty, or fifty years ago. He further argues that neither the tools of the new technologies nor television programs like "Sesame Street" and "Electric Company" nor the rising incidence of formal preschool education programs changes the concrete and exploratory nature of how young children learn.

He makes the distinction between knowing "about" a subject, such as number and word recognition and even decoding skills, and knowing "of" a subject, such as reading comprehension. He acknowledges that the previously mentioned technologies may increase some children's knowledge "about" academics, but not their knowledge "of" academics. He argues that it is difficult if not impossible to advance children's abilities to know "of" a subject at a preschool age. He and others acknowledge the short-term impact of some preschool programs on intellectual capacities but add that these academic effects usually disappear within a year or two (Featherstone).

Elkind concludes, nevertheless, that high quality preschool programs can provide great benefits to parents and children. The benefits, though, are not academic but a sense of security and openness to learning and exploring (the key elements of sound early education programs). In other words, the important effects of preschool are in the attitudes and behavior of children rather than their test scores. Featherstone also concludes from a review of several large-scale studies that high quality preschool programs have such nonacademic benefits; they can enhance children's interest in school, their sense of efficacy for doing well, and their individual behavior and interactions with other students, and can increase their parents' academic and occupational expectations of them, as well as their parents' contacts and interaction with the school.

In short, there are significant effects of high quality preschool programs that make a major difference in the long-term success of children, but the effects are more on children's attitudes about and behavior in school than on test or IQ scores. Further, these effects are more intense for economically disadvantaged students and for students whose parents are at the lowest educational level (Zigler).

Research also shows that very comprehensive and high quality preschool programs can have even broader short- and long-term effects. For at-risk children, high quality preschool programs can improve student performance in school from the elementary through the secondary level, reduce the high school dropout rate, increase the college attendance rate, increase employment, and reduce the welfare and crime rate after high school (Weikart, Beruetta-Clement et al., Irvine et al., Lazar and Darlington).

High quality preschool programs are comprehensive and expensive. They include health and social welfare services for children and parents, lots of parent involvement, appropriate early childhood education, and competent, professional, and well-paid teachers. These programs, including the much-discussed Perry Preschool program and several Head Start programs, provide an

array of services far beyond what is usually provided in public preschool programs for four-year-olds. The adult/child ratio in the proven effective programs is also quite low. Thus, a high quality preschool program needs to include an array of health and social services, heavy parental involvement in the program, a low adult/child ratio (one teacher and one aide for every fifteen children), and an educational focus on social development and academic readiness skills. Teacher compensation must be competitive, and standards for teacher professionalism need to be high.

As states enhance proposals to improve the nation's education systems over the long term, high quality preschool programs, especially for at-risk four-year-olds, should be on the agenda. The cost of such programs, in 1986 dollars, is between $3,500 and $4,000 per pupil enrolled (Weikart). Assuming that about 730,000 four-year-olds are at risk, the total cost would be between $2.6 billion and $3.1 billion (minus the amount now supporting such programs). Coordination with Head Start, which provides $1 billion for poor three- and four-year-olds, would further reduce the extra cost. Quality preschool programs, however, are very cost-effective in the long term, providing three dollars in benefits for each dollar expended (Barnett). There are few public policy programs with this potential for long-term payoff.

States also might consider programs for at-risk three-year-olds. Research also indicates that these programs can have significant positive effects and are cost-effective in the long term.[1] But addressing the needs of four-year-olds and expanding kindergarten programs probably takes priority over new programs for three-year-olds.

Child Care and Public Policy

Nearly 70 percent of women are now in the workforce; as noted above, 60 percent of women with three- and four-year-olds work outside the home. In short, there are many children who need quality out-of-home care. Estimates are that 10 percent of students enrolled in public school are "latchkey children," i.e., without adult supervision for a length of time either before or after school, or at both times. Schools, perhaps together with other social service agencies, need to play a role in providing child care and extended day care services.

One suggestion is to reconstitute the concept of the community school as the center of several services for local neighborhood children, at least administratively. Such a school could provide high quality child care for three- and four-year-olds, and extended day care for kindergarten through at least grade six students, in addition to preschool, kindergarten, and regular elementary education. The extra costs could be borne by parents on a sliding scale fee basis, with subsidies for needy families (Zigler). There are several examples of these kinds of programs around the country.

Another promising strategy being tried in several cities is to allow parents to transfer their children to a school close to where they work, usually near the center of a city. The school provides both educational and extended day care services. Usually, this fosters both ethnic and economic integration and, in many cities, puts excess city school space to good use (Hoachlander and Choy).

It is very difficult to put a cost figure on expanded child care programs. The difficulties entailed in developing these services, moreover, are probably less economic in nature than political and organizational. Child care is now provided by a variety of agencies and institutions, including homes, is conceptualized very differently by the alternative providers, and is financed by a variety of sources, including individual families, corporations, and governments. Forging cooperative agreements by having the variety of child care providers agree to an integrated and coordinated approach to child care in different communities is probably the first step in expanding child care programs. While states might want to allocate some funds to expand the level of government-provided child care, providing funds to stimulate processes that will lead to the development of such cooperative agreements is also in order, both as a way to design effective service delivery systems and to identify the real private and public costs of financing them.

Mandatory Kindergarten Attendance

Traditionally, most states have provided a half-day kindergarten program for five-year-olds. Today, however, full-day kindergarten programs are provided in at least some districts in thirty-two states. A recent survey of elementary school principals showed that 27 percent of schools provided full-day kindergarten (Educational Research Service). The same survey showed that only 17.5 percent of schools provided a transitional first grade for those students who have completed kindergarten but are not fully ready for first grade. In assessing state kindergarten policy, today, there are several questions, including the relative efficacy of full- and half-day kindergarten, whether class size makes a difference, and whether entry age is important.

Several research studies show that students, especially low-income students who attend kindergarten, perform better in school than those that do not (for example, Schweinhart). Further, a study conducted by the Illinois Board of Education shows that small kindergarten class size (fewer than sixteen students) can produce additional social and cognitive gains for at-risk children.[2] While the research is mixed on the impact of full-day kindergarten, several states and large city districts have begun to offer full-day kindergarten programs. With the rising incidence of mothers in the workforce, such programs are needed simply for day care. Finally, research is pretty clear that students should be at least five years old before enrolling in kindergarten and that transitional first grades are good school policies.

At a minimum, research suggests that kindergarten attendance should be mandatory for all five-year-olds. Expanding kindergarten from a half to a full day has less research support for academic objectives, but can be justified on a child care rationale. It would be a costly policy. Assuming there are about 3 million students currently not in full-day kindergarten programs, the cost of providing a full-day program would be, roughly, $5.25 billion (3 million students times $3,500 per student times one-half. The 1985-86 estimated national average expenditure per pupil is about $3,500).

States would need to weigh the cost and trade-offs among full-day kindergarten, half-day kindergarten with very small class sizes, half-day programs for at-risk four-year-olds, and extended day care programs for four- and five-year-olds. All require significant short-term investments but also promise long-term benefits.

PARENTING ASSISTANCE

Research shows that parents of at-risk preschools can benefit from training in parenting, child-rearing, and reading and talking to their children. The impact on their children is broad ranged and produces increased performance in affective and cognitive skill areas. Such programs are effective at least through the elementary grades. Research also shows that such programs are inexpensive and "work" with all kinds of parents, highly educated or not. Parenting programs should be provided only for parents who volunteer to participate (Curry).

Indeed, according to another synthesis of research, the curriculum of the home predicts academic learning twice as much as socioeconomic status (Braue, Weinstein, and Walberg). The home curriculum activities are things that all parents can do, such as having informed parent/child conversations about everyday events, discussing leisure reading, monitoring and jointly analyzing television watching, helping to defer immediate gratification to accomplish long-term goals, and expressing affection and interest in their child's academic and personal growth. In twenty-nine controlled studies, the results favored children in programs designed to improve these kinds of elements in the home curriculum. Indeed, while the average effect was twice that of socioeconomic status, in some cases the effect was tenfold.

Parent Training

Thus, states should adopt some type of parent training program, provided on a school site basis, for parents volunteering to participate. The scope of such programs might vary depending on resources available and the needs of the parents. In some case, it may be appropriate to link student remediation activities to adult education activities in which parents are helped in raising their skills, in part, so that they can help their children with their school work. The costs to the schools may be negligible because other resources, ie., adult education and/or employment and training funds, could pay for such activities. Costs to the school might include a full-time coordinator. States could even target the schools with the highest concentration of at-risk students or prioritize funding for such a program; that might decrease the number of eligible schools to one-fourth of the total.

In addition there is emerging evidence that parenting training should be included in the school for young adults who have or are about to have children. Such programs might be linked to in-school day care facilities that might also provide vocational training opportunities and work experience in child care and related fields for students.

A STRONG REGULAR EDUCATION PROGRAM

In 1983, the nation began to realize that the core academic program of several school systems had declined in substance and depth over the previous two decades. Recent state education reforms have been designed to strengthen the regular academic program, and also to align categorical programs for special needs students more closely to this core.

A Substantively Sound, Core Curriculum Program

All students, including at-risk children, need to learn the competencies and skills included in a sound core academic program that emphasizes skills and knowledge, as well as writing, communication, and analytic, problem-solving skills. At-risk students also need to master this curriculum; they should not be given a "watered-down" curriculum. The goal should be to have all students master a strengthened regular curriculum program. A good argument for this position was developed by Bill Honig, Superintendent of Public Instruction in California, in testimony before the task force.

Education Improvement Programs that Stress the Development of Effective Teaching, Effective Instructional Supervision, and Effective Schools

Research on effective teaching, effective supervision, and effective schools has identified several teaching strategies and behaviors and a number of school characteristics that are associated with improved performance of at-risk students. There is a broad base of effective schools research at all levels of the system: elementary, middle, and high school. A large portion of this research derives from school settings with high concentrations of at-risk children and students, and thus is particularly relevant for state policy concerning at-risk students. Characteristics of effective schools include strong curriculum and instructional leadership, high expectations and standards, collegial working relationships, an ongoing staff development program, a system for monitoring student performance, and a clean and orderly environment with a firm and consistently enforced discipline program (Purkey and Smith). These characteristics apply particularly to elementary schools, but they also form the core of the characteristics of effective secondary schools.

There now is a growing research base on the characteristics of schools that are effective with students in their early adolescent years (for example, Lipsitz; Levine, Levine, and Eubanks). Integration, connection, and variety are themes highly salient for early adolescents. Thus, in addition to the above six characteristics, effective middle schools have a curriculum diverse in teaching styles, methods, and materials and with a balance of core courses and high-interest courses; a focus on student self-exploration in their schools and communities; small group sessions that help provide positive social interactions with peers and adults; noncompetitive physical activity; a focus on competence and achievement; and clear structure and limits.

The middle years often are overlooked in education policy initiatives, which tend to address the elementary or senior high school. State programs to develop the elements of effective schools for early adolescents are a key low-cost, high-gain policy initiative.

In addition, since many at-risk students drop out of school as they move from middle to high school, states may wish to consider implementing programs that provide a bridge between the two levels. Such programs might involve summer remediation and work experience activities such as those funded under the Job Training Partnership Act, counseling services, or activities that help middle school students make the transition to the new environment.

Characteristics of effective high schools include the six core elements (Rutter et al.; Farrar, Neufeld, and Miles; Corcoran). However, because high schools are larger and more complex organizations than elementary schools, the processes for improvement need to be more varied and complex. Because high schools are usually larger than elementary schools, more people are involved in improvement activities, so more attention must be given to processing interactions. Because high schools have academic departments, their existence must be recognized and valued in all improvement initiatives. Successful high school improvement strategies should be both school-wide and department specific.

A key element of an effective school at any level, moreover, is a comprehensive student diagnosis, assessment, and monitoring mechanism, usually linked to district and state testing programs.

There is an even broader base of research on effective teaching strategies, including teacher expectations, classroom management, and good pedagogy (Wittrock). Effective teaching research also includes new strategies in cooperative learning techniques in which at-risk students work with other students in teams. These strategies improve the academic performance of all students, including at-risk students, in addition to producing positive social effects on all students. Since such strategies put lower achieving students into teaching roles in which they succeed, their academic self-esteem is strengthened (Slavin). Additional research shows that these teaching strategies can be developed in teachers through low-cost but high-quality training programs. In addition, research shows that state-initiated programs based on both the effective schools and teaching research can be implemented successfully in local schools and districts (Anderson and Odden; Odden and Anderson; Farrar and Flakus-Mosqueda; Davis and Odden; Furham, Huddle, and Armstrong).

States would be wise to develop and support a set of school improvement programs based on the above research. They are proven effective in improving the performance of at-risk students and they can be key implementation vehicles for education reform programs generally. Finally, a comprehensive set of such programs would cost less than $100 per pupil, which is just a $4 billion cost nationwide, less the already considerable funds now supporting these programs in some states. The successful California School Improvement Program provides about $100 per pupil. Most other state education improvement programs provide less funding but also are less comprehensive and produce less of an impact.

Programs that Provide Extra Help for Students With Deficiencies in the Basic Skills

Even with a good core curriculum program and effective schools and teaching strategies, some students will need extra assistance. It is time to recognize that a rising number and percentage of at-risk students are immigrants or others who are not proficient in English. The nation must move beyond the ideological debates and political posturing surrounding the educational needs of these students and fully fund services to develop English proficiency in all students.

The twenty-year history of state and federal compensatory and remedial education programs shows that such programs work.[3] There also is emerging consensus on the key elements of effective compensatory education. There is a broad research base for effective reading, including remedial reading (Calfee and Drum).

Not all students now eligible for and needing compensatory education services receive them. Optimistic estimates are that about two of every five poor children are enrolled in a Chapter I class. The service gap begins to widen at the secondary level, since most districts concentrate compensatory education services at just the elementary level. While accurate national figures on the number of students receiving compensatory education services under either federal or state funding are unavailable, a high estimate would be to assume that, at most, 50 percent of students nationwide needing such services receive them. States and districts use neither uniform poverty nor educational need measures in identifying the number of students eligible for compensatory education services. Further, service levels vary significantly even for those students served. Thus, a "hard" figure on either the number of eligible or served students is not available. Expansion of compensatory and remedial programs to all poor and low-achieving students is needed, therefore, in order to ensure that all at-risk students learn the regular curriculum program that is being strengthened by current education reforms.[4] Such extra services, moreover, should be available to all students who need them, in elementary, junior, and senior high schools. Compensatory education should not stop at the elementary level.

Since the federal government now provides about $3 billion for compensatory education programs, and the states another $1 billion, and since there are several other related programs for which nationwide total appropriations have not been tabulated, expanding extra services to all poor and low-achieving students likely would entail an additional expenditure of between $2 billion and $4 billion. Again, however, the likely long-term payoff is quite high.

A problem with compensatory and remedial reading programs in the past, however, is that they provided instruction in a curriculum that was different from the regular, core curriculum. Thus, rather than receiving extra services to help learn the core curriculum, low-achieving students often were given two curriculums to learn. A more promising strategy is to align compensatory education services more directly to the regular curriculum program so that the extra services help under-achieving students learn what all the other students learn. Program designs and structures, therefore, together with their accompanying regulations, should be modified to ensure that expanded compensatory services reinforce the regular education curriculum (Odden).[5]

In addition, there is considerable research that suggests that lowering class size to fifteen students or fewer also can be an effective strategy for improving student performance. Research suggests that, for subjects that entail at least 100 or more hours of instruction per year (essentially all subjects in the regular academic program), classes with just ten students and one teacher can improve average performance from the 55th to the 75th percentile (Glass et al.).[6] That is a major impact from a policy easy to implement, administratively. States need to consider the possibilities of

using all funds from expanded compensatory education policies to reduce class sizes to fifteen or fewer, at least for at-risk children. State policy to limit all classes to fifteen or fewer students in kindergarten to third grade also should be considered; such a strategy might be very effective, and even cost-effective, in the long run.

Another option for a new approach to deliver compensatory education services, especially for schools with large concentrations of poor and low-achieving students, is to adopt a set a schoolwide effective teaching, effective schools, and staff development strategies, that is, to focus on schoolwide change in curriculum, teaching, and school culture, and not just to change the compensatory education program. This approach is now being tried on an experimental basis, with preliminary research indicating it has potential (for example, Robbins). In fact, this approach means that alternatives that have up until now been considered adjuncts to the core education program may need to be incorporated into the basic offerings of our high schools.

Alternative Programs and Settings

Extensive work with dropouts in second chance out-of-school programs suggests that many at-risk youth in high school need an alternative program and possibly alternative setting in order to be successful in completing their high school studies. Characteristics of successful alternative programs identified by research are (McDill, Natriello, and Pallas; Stern et al.):

- Structures, usually small in size, that provide a cohesive school community with a strong sense of affiliation, similar to a membership organization that one joins. One hundred students often is cited as the maximum size (Wehlage and Rutter).

- A variety of environments, from which the student selects the one to which he or she will make a commitment. Some examples are street academies with strict attendance standards and focus on academic skills, caring communities for those who find it difficult to deal with the impersonal nature of large schools, enterprise programs in which goods are produced for sale, and work brigades that entail doing service for others.

- Teachers who believe that at-risk students need a new chance to learn and that they, indeed, can learn.

- A learning ethos characterized by clear and fair rules consistently enforced, rewards for individual effort and progress, and a normative emphasis on academic excellence.

- Instructional modes that include individual, small group, and whole group instruction, and that stress cooperative rather than competitive learning. Social skills as well as academic skills need to be developed.

- o Job opportunities for learning behaviors needed in the work place and for earning money needed for individual economic reasons.

- o Community and business backing and support.

Although young in chronological age, many children face adult family and economic responsibilities that necessitate mixing school with work and other activities. In order to balance school and other responsibilities, some students may need the option of flexible school schedules so that they do not have to drop out.

All high schools should provide access to some range of such alternative learning experiences, different from what is available in the regular high school. One model of alternative programs is provided by Wehlage; Stern et al. provide a description of several other alternatives.

Developing alternatives within schools does not necessarily cost more money. It does, however, necessitate changing the way things are traditionally done. Such changes may include altering staffing arrangements within the classroom, i.e., greater use of teacher assistants working under the supervision of master teachers, to improve teacher-to-student ratios; as well as changes in teacher functions and work hours.

Other changes may involve greater emphasis on student assessment for diagnosis of learning needs and deficiencies, use of competency-based curriculum that provides needed structure and feedback to students, and better use of computers to allow students to work at their own pace as well as for drill and practice and administrative tasks in order to free instructors for more one-on-one time with students.

Teachers will need to be better trained in pre- and in-service programs in techniques for identifying and working with at-risk youth. They will need to learn how to identify the need for and access supportive services for their students, and how to manage educational programs that may involve experimental components -- self-paced, competency-based components as well as traditional classroom instruction. Teacher career ladders may need to provide incentives for teachers to work in high-risk schools and with high-risk students.

Continued Identification and Supportive Services for At-risk Students

Research not only has identified the characteristics of high school dropouts, but also has provided characteristics of elementary students that are strongly correlated with dropping out in secondary school. A formal system of "early identification" and provision of supportive services could help reduce the number of students who fall behind academically and ultimately drop out of high school.[7] Such programs would need to be designed so as not to stigmatize students while simultaneously intervening to provide the supports needed for them to succeed in school. This policy initiative would provide early identification, counseling, and home support services and could serve as an adjunct to or element of broadened compensatory and remedial programs.

This type of policy should be extended into early adolescence and high school as well. Early adolescents need individual attention and connection -- to the school, to the community, to the home, and to persons. Pairing staff members with at-risk students to provide individual counseling and attention, developing after-school homework assistance groups, providing a homework telephone hotline, all strategies that have been tried with success in various school districts across the country, are programs that provide this type of individual support and connection.

At the high school level, student records and transcripts need to be reviewed and students need to be counseled on a program of studies that will lead to both high school graduation and the acquisition of knowledge in various content areas. Such programs can be developed with only $20 per student, though additional funding is needed to ensure follow-through monitoring and counseling as students work their way through high school.

In short, states could implement a stream of policies to ensure that at-risk students are identified, monitored for performance, and provided needed help from other community resources throughout their schooling experience so that early warnings of difficulty can trigger service interventions such as counseling, family support, and academic assistance. Particular attention may need to be directed to addressing the health, social service, and income needs of pregnant and parenting teens so that they can complete their education. Since most at-risk students "slip out" of school gradually, such continued attention to them could halt the slippage and more than offset the small nominal cost, at least in the long run.

Summer Programs

Research shows that, overall, economically disadvantaged students "forget" more over the summer than other students (Berlin 1984, 1984a). Summer programs that provide educational enrichment as well as academic training could help reduce the summer loss for both elementary and secondary students, as well as provide opportunities to "make-up" failed courses. Teenagers from poverty backgrounds also have a strongly developing need for extra money, which their parents are less able to provide. Offering them summer programs that have both a job, and thus pay, component and an academic review and training component is a way to address both economic and academic issues.

Job Programs

There is clear evidence that the provision of temporary jobs alone does not have the power either to reduce dropout rates or to retain youth who return to school after dropping out (Betsey, Hollister, and Papageorgiou).

The kinds of reforms discussed earlier will need to be implemented to accomplish these goals. Jobs programs can, however, support school-based programs by providing concrete reinforcement of classroom learning.

Secondary vocational education programs often are used as a dropout prevention alternative, combining preparation for work with related basic skill instruction. Many such programs are successful in making the learning of basic skills relevant to the interests and work-related goals of at-risk

students. Such programs use competency-based curricula, experiential learning, and adult education techniques that work well with at-risk individuals.

Although job programs for at-risk, primarily economically disadvantaged, youth have been supported by the federal government for more than fifteen years, first through CETA and now under JPTA, relatively little progress has been made in integrating them into the school curriculum to have a significant impact on dropout rates or the educational attainment of students who stay. There are several reasons for this. Schools have been reluctant to make a commitment to such programs because of the presumed temporary nature of their funding and because of the targeting, contracting, and other strings attached to the resources by the responsible employment and training agencies. With limited resources, especially in recent years, employment and training agencies have been reluctant to provide services that could be funded directly by the school systems themselves. Also, because of the employment orientation of the programs, they often have placed a greater priority on serving out-of-school rather than in-school youth.

Experience with summer job and other employment programs indicates that many disadvantaged youth who cannot find jobs want to work and will do so if offered the opportunity. The good news about the multiplicity of job programs attempted over the past decade is that public/private partnerships are able to produce new jobs that are more than "make-work." In other words, there is cause for optimism for the capacity to mount and run large-scale programs for at-risk youth that include a large jobs program element. Job programs targeted to in-school youth should provide part-time jobs during the school year for students who need them for economic reasons, but link these opportunities to school activities and programs that build academic skills and good school attendance records.

Both the programs and jobs provided through federally supported employment and training programs often are underfunded and isolated from the mainstream community economic and educational activities. This isolation diminishes their potential. Since they serve students who themselves are isolated and detached and who need an environment that helps them reconnect and integrate into the mainstream society, their isolated nature undoubtedly can give the impression that they do not provide an opportunity to move into the mainstream.

PROGRAMS FOR LIMITED ENGLISH PROFICIENT STUDENTS

A rising number and percentage at-risk students are immigrants or others who are not proficient in English. The nation must move beyond the ideological debates and political posturing surrounding the educational needs of these students and fully fund services to develop English proficiency in all students. The country also could consider requiring everyone to become proficient in at least two languages, one of which is English. With trade now becoming a world-wide phenomenon, especially in the Pacific and South American areas, knowledge of Spanish, Japanese, Chinese, Korean, and several other languages, including the traditional European languages, becomes a necessity for an increasing number of Americans. A clear language policy, which includes soundly designed and well funded programs to make all students proficient in English, is something all states need to develop.

CONCLUSION

States should incorporate the lessons learned over the years from working both within and out of schools and incorporate key elements in the second wave of educational reform.

If states do not adopt the combination of programs outlined in the previous sections, it will be difficult for the current, national high school dropout rate of between 25 and 35 percent to decrease. Indeed, without more alternatives within schools, including the provision of a variety of extra services where needed, current education reforms with their tougher curriculum and higher standards are likely to increase the dropout rate (McDill, Natriello, and Pallas). The costs of these services can no longer be considered extraordinary to be funded by the federal government through targeted education and training resources. State and local budgets for education will increasingly have to provide for the sustained and adequate support of such activities. The investment is worth the money. High dropout rates are costly. The nationwide cost of the 13.6 percent of the high school class of 1982 who did not graduate is estimated to be $55 billion; that figure excludes the cost of students who dropped out before becoming seniors, so the total cost is actually higher than $55 billion (McDill, Natriello, and Pallas). The bottom line is that the nation needs to decrease the high school dropout rate.

ENDNOTES

1. Both the Perry Preschool and several Head Start Programs showing long-term effects had three-year-olds in the programs.

2. The study shows that small classes for a half day provide more gains than large classes for a full day.

3. Nearly all studies of changes in student performance show that, over the last twenty years, that is, the years of compensatory education policy focusing on poor and minority children, the achievement gains of minorities and low-income children have exceeded national average gains. See, for example, Congressional Budget Office, Trends in Educational Achievement, Washington, D.C.: U.S. Government Printing Office, April 1986. Project staff for the current congressionally mandated national assessment of Chapter 1 are just completing a major synthesis of research on the effectiveness of compensatory education programs; their conclusion, too, is that compensatory education programs work. The conservative view of the effectiveness of Title 1 is in S.P. Mullin and A.A. Summers, "Is More Better: the Effectiveness of Spending on Education," Phi Delta Kappan, Vol. 64, No. 5, January 1983, pp. 339-347.

4. Expansion and development of state compensatory education programs, such as the recent actions of South Carolina and Texas, should be part of this process.

5. California has enacted several programmatic and administrative changes to strengthen the regular curriculum program and to align compensatory services more closely to it, while simultaneously delegating to the local level wide discretion to determine the specifics of implementation. In

addition, administration and paperwork overburden at both the state and local level have been reduced, and compliance monitoring has been streamlined, focused to key issues only and coordinated across programs. See Allan Odden, "Education Reform and Services to Poor Children: Win-Win in California," Los Angeles University of Southern California, School of Education, July 1986, unpublished manuscript.

6. While Glass et al. show that the average impact of lower class size on student achievement is somewhat less when the data from all studies are analyzed, the impact is larger when the data are analyzed just from studies with good experimental controls and that provided over 100 hours of instruction.

7. Such systems can be developed straightforwardly using the tools of personal computers and powerful database management systems like dBase III.

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PART THREE: Additional Resources

HIGHLIGHTS OF STATE POLICIES

This is a partial listing of state efforts to address the special problems of at-risk students. These are referenced in more detail in the background paper by McDonald.

Infant and Family Programs

MINNESOTA: Early Childhood Family Education program - serves family of child birth to kindergarten with discussion groups, home visits, health screening, parent/child interaction.

MISSOURI: New Parents as Teachers program helps parents from pregnancy through third year with home visits, parental support groups.

Early Childhood Education

CALIFORNIA: Supports preschool programs for low-income children at $34.5 million.

ILLINOIS: Adopted a preschool program for at-risk three- to five-year-olds; nonprofit agencies may provide the service.

MARYLAND: Extended Elementary Education Program prekindergarten for at-risk four-year-olds.

NEW YORK: Prekindergarten program for low-income four-year-olds.

SOUTH CAROLINA: Half-day preschools for at-risk four-year-olds.

TEXAS: Half-day prekindergarten program for educationally disadvantaged four-year-olds.

Supplementing Head Start Programs

ALASKA AND WASHINGTON: Provide additional assistance above federal funding level for Head Start.

MAINE: Adds state money to Head Start funds to serve one-fourth of all eligible youngsters.

Kindergarten Programs

KENTUCKY: Has an individual kindergarten program for at-risk youngsters within a regular kindergarten classroom.

MASSACHUSETTS: Adopted an "enhance" kindergarten program and a transitional first grade, which include elements of parent outreach and lowered staff/child ratio.

Compensatory and Remedial Programs

ARKANSAS:	Project Impac uses computers for basic skills instruction.
INDIANA:	PRIME TIME is a program to reduce class size in grades K-3. The goal is an average teacher/pupil ratio of eighteen to one for K-1 and twenty to one for grades two and three.
MINNESOTA:	Adopted a comprehensive school effectiveness plan in 1983 including leadership team training and staff development.
NEW JERSEY:	Basic skills testing for remediation and minimum competency purposes.
PENNSYLVANIA:	Testing for Essential Learning and Literacy Skill - tests third, fifth, and eighth grade pupils on basic skills; scores identify students needing remedial assistance.
UTAH:	Provided training in Outcome-Based Education with special emphasis on rural school districts.

Dropout Prevention Programs

FLORIDA:	A Center of Dropout Prevention has been established at the University of Miami as a clearinghouse on model programs and a data center. Each Florida school must develop a comprehensive dropout prevention plan according to 1986 legislation.
NORTH CAROLINA:	Passed a $15 million state dropout prevention program in 1985 and established a Statewide Dropout Prevention Coordinating Program.
OHIO:	The Ohio Youth Conservation Corps and "Operation Jobs for Youth" are two primary youth programs. Basic skills remediation, employment, and vocational training are provided through these efforts.
WASHINGTON:	Educational clinics are subsidized with state support to give individualized assistance to dropouts and potential dropouts.
WISCONSIN:	Has enacted a "children-at-risk" law with the goal of reducing truancy and the dropout rate. The Wisconsin Youth Initiative is a program in Milwaukee to train and educate at-risk students.

70

ADDITIONAL SOURCES

The reader who wishes additional research information and resources is referred to the sources listed below. These organizations are funded and coordinated under the auspices of the U.S. Department of Education's Office of Educational Research and Improvement.

ERIC Clearinghouse on Elementary and Early Childhood Education

The clearinghouse has established a data base of relevant articles, paper, publications, and materials on the physical, cognitive, social, educational, and cultural development of children from birth through early adolescence, parental factors, parental behavior factors, learning theory, research, and practice related to the development of young children, including the preparation of teachers for this educational level; educational programs and community services for children; and theoretical and philosophical issues pertaining to children's development and education.

University of Illinois, College of Education
805 West Pennsylvania Avenue
Urbana, IL 61801
(217) 333-1386

Center for the Study of Learning (CSL)

The center seeks to apply the most advanced scientific resources to the study of school subject-matter learning. CSL seeks knowledge that will help raise levels of educational performance for all children, from the hardest to teach to the most talented. CSL focuses research efforts on the appropriate relationship between the acquisition of general capabilities in learning, reasoning, and problem solving, and the subject matters: mathematics, science, and social studies. Skills for learning and thinking are addressed in the context of each subject area.

Learning, Research and Development Center
University of Pittsburgh
3939 O'Hara Street
Pittsburgh, PA 15260
(412) 624-4895

Center for Effective Elementary and Middle Schools

The center's mission is to provide research about how elementary and middle schools can foster growth in student learning and development; to develop and evaluate practical methods for improving the effectiveness of elementary and middle schools based on existing and new research findings; and to develop and evaluating specific strategies to help schools implement effective research-based school and classroom practices.

Johns Hopkins University
Education Research Development Center
3505 Charles Street
Baltimore, MD 21218
(301) 338-7570

Center on Effective Secondary Schools

The center is dedicated to learning how to improve the achievement of all students through school-site strategies that enhance student learning. Special attention is directed to the needs of disadvantaged and less successful students. Major projects include research on academic achievement, higher order thinking, at-risk students, staff working conditions, and school change.

Wisconsin Center for Education Research
School of Education, University of Wisconsin
1025 West Johnson Street
Madison, WI 53706
(608) 263-7575